

Docket No. 100200768-1

**Remarks**

This communication is responsive to the Office Action of April 18, 2006.  
Reexamination and reconsideration of claims 1-18 and 20-36 is respectfully requested.

**Summary of The Office Action**

Claims 7-18 are allowed.

Claims 22, 26, 29, 32 and 34-36 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Claims 25 and 31 were objected to because of a misspelling.

Claims 1-6 and 20, 21, 23, 25, 27, 28, 30, 31 and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by Torgerson et al. (US 6,309,053).

Claim 24 was rejected under 35 USC §103(a) as being unpatentable over Torgerson et al. (US 6,309,053) in view of Burke et al. (US 6,102,528).

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**Claim Objections**

Claims 25 and 31 were objected to because the term "power buss" should be changed to "power bus". Applicant notes that the spelling of "buss" is a known alternative spelling for "bus", especially when referring to an electrical bus. As such, the term is correctly spelled in either case. An amendment is not deemed necessary and the objection should now be overcome.

**The Present Claims Patentably Distinguish Over the References of Record**

**Independent Claim 1**

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by Torgerson et al. (US 6,309,053).

Regarding the claimed first and second heater elements, the associated first and second drive transistors, and the recited spacing configurations, the Office Action (on page 2) cites to Torgerson elements 81 and 82 to teach the drive transistors. Applicant respectfully submits that elements 81 and 82 refer to an array of drive transistors. The drive transistors themselves are FET drive circuits 85 that form each array 81 and 82 (see column 4, lines 1-3).

Looking to the spacing taught by Torgerson, figure 1 does not show different spacings as claimed. Figure 1 appears to show the resistors and array of transistors 81, 82, 83 to be evenly spaced, not differently. Furthermore, Figure 1 merely illustrates phantom outlines of the arrays 81, 82, 83, which provide no detail. Of course, patent figures are not determinative for such features as relative size, dimensions, and spacings so one must look to the specification for clarification of the actual teachings.

In the specification, Torgerson does not described the spacing between the heater resistors 56 and transistor arrays 81, 82, 83, or the FET drive circuits 85. Torgerson only discusses spacing between the groups of drop generators 61, 62, 63 and resistors 56 (column 3, lines 28-48) and the spacing of the feed slots 71, 72, 73 (column 3, lines 55-59).

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Therefore, Torgerson fails to teach or suggest the recited features of claim 1 and their spacing. Accordingly, Torgerson fails to support a proper §102 rejection and the rejection should be withdrawn.

Regarding the claimed power bus, the Office Action cites to Torgerson, Figure 6, element 85 as teaching the power bus. However, Applicant respectfully submits that element 85 is not a power bus but rather is a drive transistor. Torgerson states:

"Each drive circuit array (81, 82, 83) includes a plurality of FET drive circuits 85 connected to respective heater resistors 56." (Torgerson, column 4, lines 1-3)

Torgerson appears to teach that power comes from conductive traces 86. Torgerson refers to the traces 86 as "non-grounded power traces" (see column 4, lines 41-42). Applicant finds no disclosure in Torgerson concerning covering contacts of the drive circuits 85 or that the power traces 86 are a protective layer. Thus, Torgerson fails to teach or suggest a power bus being a protective layer covering the contacts of a drive transistor.

The Office Action also cites to Torgerson column 4, lines 3-64 as teaching the claimed power bus. Applicant has reviewed this section and finds no discussion of a power bus being a protective layer as claimed. Rather, this section discusses the conductive traces 86 as explained above, and also parasitic resistance (column 4, lines 43-64). For this additional reason, Torgerson fails to support a proper §102 rejection and the rejection should be withdrawn.

Since claim 1 recites features not taught or suggested by the Torgerson, claim 1 patentably distinguishes over Torgerson. Accordingly, dependent claims 2-6 also patentably distinguish over the references and are in condition for allowance.

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Independent Claim 20

Independent claim 20 was rejected under 35 U.S.C. §102(b) as being anticipated by Torgerson et al.

Applicant respectfully submits that Torgerson fails to teach or suggest the claimed configuration of heaters and drive transistors as recited in claim 20. The Office Action cites to Figures 1 and 3 from Torgerson. In Figure 1, Torgerson shows three separate arrays of ink drop generators 61, 62, 63 but the heater resistors 56 are not specifically shown. Applicant assumes that the illustrated row of "circles" represent orifices 21, which appear to line up with the heater resistors 56 as shown in Figure 3. However, neither figure 1 nor figure 3 illustrates the FET drive circuits 85. Rather, Figure 1 only shows a phantom outline of the drive transistor circuit arrays 81, 82, 83. Thus, the phantom outline fails to provide enough information to disclose relative relationships between the heater resistors 56 and FET drive circuits 85. Therefore, neither figure 1 nor figure 3 teach or suggest the features of claim 20.

Instead, Applicant submits that Figures 4 and 6 of Torgerson illustrate both the heater resistors 56 and their connected FET drive circuit 85. In figure 4, resistors 56 are not labeled but appear to be represented by the "circle inside the square" as part of the group 61. The FET drive circuit 85 is labeled as such. Each resistor 56 is connected to a respective drive circuit 85, which is illustrated as phantom rectangles (column 4, lines 2-3).

There is no discussion in Torgerson that the distances between these elements are different in any way or similar to what is claimed. The distances appear equal from Figure 4. Furthermore, Figures 1 and 3 illustrate similar equal relationships and nothing in Torgerson suggests otherwise. As previously explained, Torgerson is not concerned about the type of configuration presently claimed.

Therefore, Torgerson fails to teach or suggest a first firing heater element separated by a first distance from an associated first drive transistor, and a second firing heater element separated by a second distance from an associated second drive transistor, where the distances

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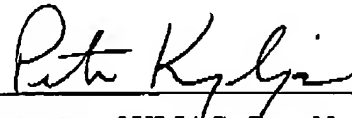
are different. Thus, claim 20 patentably distinguishes over Torgerson and the rejection should be withdrawn. Applicant believes claim 20 and its dependent claims 21-36 are now in condition for allowance.

**Conclusion**

For the reasons set forth above, **claims 1-18 and 20-36** patentably and unobviously distinguish over the references of record and are now in condition for allowance. An early allowance of all claims is earnestly solicited.

Respectfully submitted,

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